

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

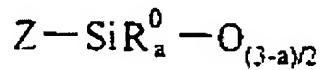
Listing of Claims:

1-11. (Cancelled)

12. (Currently amended) A low shrinking polymerizable or crosslinkable dental composition comprising a mixture of:

(1) at least one crosslinkable and/or polymerizable silicone oligomer or polymer which is liquid at room temperature or which is heat-meltable at a temperature of less than 100°C, and which comprises:

at least one unit of formula (FS):



wherein:

$a = 0, 1$ or 2 ,

R^0 , identical or different, represents an alkyl, cycloalkyl, aryl, vinyl, hydrogeno or alkoxy radical,

Z , identical or different, is an organic substituent comprising at least one reactive epoxy, or alkenyl ether or oxetane or dioxolane or carbonate functional group,

and at least two silicon atoms,

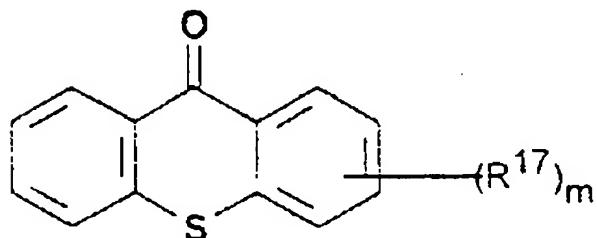
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(2) at least one aromatic hydrocarbon photosensitizer, having a residual light absorption of between 200 and 500 nm, and selected from the group consisting of the following formulae (VIII), (X), (XII) and (XXII):

thioxanthones of formula (VIII):

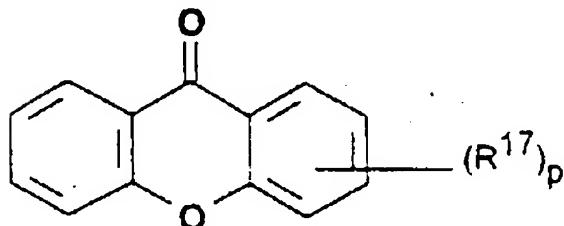


wherein:

$m = 0$ to 8,

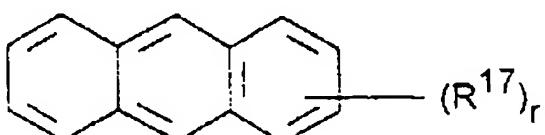
R^{17} , identical or different substituent(s) on the aromatic nucleus (nuclei), represent a linear C1-C12 alkyl radical, a branched C1-C12 alkyl radical, a C6-C12 cycloalkyl radical, a radical Ar^1 , a halogen atom, an -OH, -CN, -NO₂, -COOR⁶, -CHO, Ophenyl, -CF₃, -SR⁶, -Sphenyl, -SO₂phenyl, Oalkenyl, or -SiR⁶₃ group;

xanthones of formula (X):



wherein $p = 0$ to 8

anthracene of formula (XII):



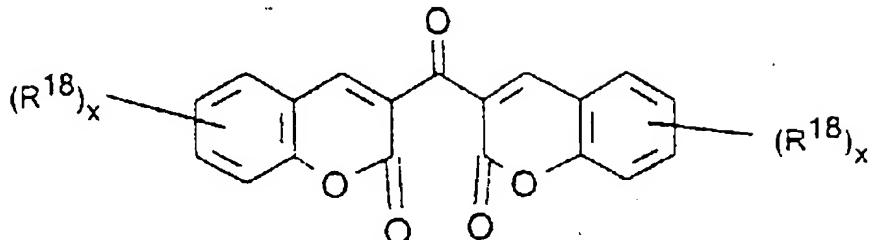
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wherein = 0 to 10, and

biscoumarins of formula (XXII):



wherein:

R¹⁸, identical or different, has the same meaning as R¹⁷ above or represents a group:

-NR₆⁶, wherein R₆ represents a linear C1-C12 alkyl radical,

(3) at least one dental filler present in a proportion of at least 10% by weight relative to the total weight of the composition, and

(4) an effective quantity of at least one borate-type photoinitiator, whose ~~cationic entity of the borate residue~~ is:

1' : [B(C₆F₅)₄]⁻

5' : [B(C₆H₃(CF₃)₂)₄]⁻

2' : [(C₆F₅)₂BF₂]⁻

6' : [B(C₆H₃F₂)₄]⁻

3' : [B(C₆H₄CF₃)₄]⁻

7' : [C₆F₅BF₃]⁻

4' : [B(C₆F₄OCF₃)₄]⁻.

wherein the cationic entity of the borate is:

[(Φ)₂I]⁺

[C₈H₁₇-O-Φ-I-Φ]⁺

[(Φ-CH₃)₂I]⁺

[C₁₂H₂₅-Φ-I-Φ]⁺

[(C₈H₁₇-O-Φ)₂I]⁺

[(C₈H₁₇-O-Φ-I-Φ)]⁺

[(Φ)₃S]⁺

[(Φ)₂-S-Φ-O-C₈H₁₇]⁺[(CH₃-Φ-I-Φ-CH(CH₃)₂]⁺

[(Φ-S-Φ-S-(Φ)₂]⁺

[(C₁₂H₂₅-Φ)₂I]⁺

[(CH₃-Φ-I-Φ-OC₂H₅]⁺

and

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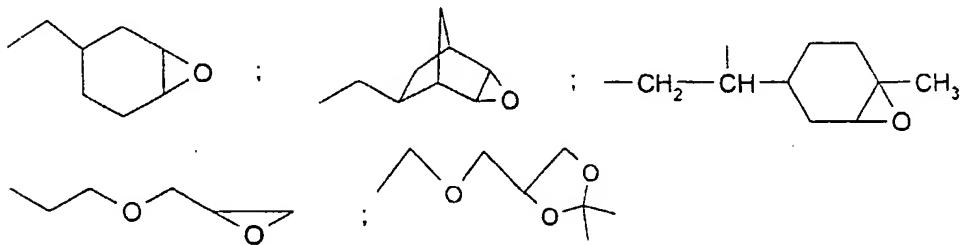
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wherein the composition has a volumetric polymerization and/or crosslinking shrinkage of less than 1.5% v/v.

13. (Previously presented) The dental composition as claimed in claim 12, wherein Z is an organic substituent Z1 comprising at least one reactive epoxy, or dioxolane functional group.

14. (Previously presented) The dental composition as claimed in claim 13, wherein the reactive functional group Z1 is:



15. (Cancelled)

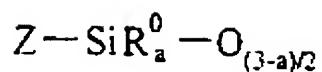
16. (Currently amended) ~~The dental composition as claimed in claim 12 A low shrinking polymerizable or crosslinkable dental composition comprising a mixture of:~~
(1) at least one crosslinkable and/or polymerizable silicone oligomer or polymer which is liquid at room temperature or which is heat-meltable at a temperature of less than 100°C, and which comprises:

at least one unit of formula (FS):

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wherein:

a = 0, 1 or 2,

R^0 , identical or different, represents an alkyl, cycloalkyl, aryl, vinyl, hydroxyl or alkoxy radical,

Z, identical or different, is an organic substituent comprising at least one reactive epoxy, or alkenyl ether or oxetane or dioxolane or carbonate functional group,

and at least two silicon atoms,

(2) at least one aromatic hydrocarbon photosensitizer, and

(4) an effective quantity of at least one borate-type photoinitiator, whose borate residue is:

1': $[\text{B}(\text{C}_6\text{F}_5)_4]^-$

5': $[\text{B}(\text{C}_6\text{H}_3(\text{CF}_3)_2)_4]^-$

2': $[(\text{C}_6\text{F}_5)_2\text{BF}_2]^-$

6': $[\text{B}(\text{C}_6\text{H}_3\text{F}_2)_4]^-$

3': $[\text{B}(\text{C}_6\text{H}_4\text{CF}_3)_4]^-$

7': $[\text{C}_6\text{F}_5\text{BF}_3]^-$

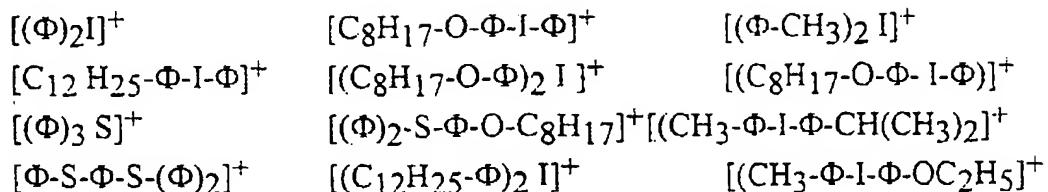
4': $[\text{B}(\text{C}_6\text{F}_4\text{OCF}_3)_4]^-$

wherein the cationic entity of the borate is:

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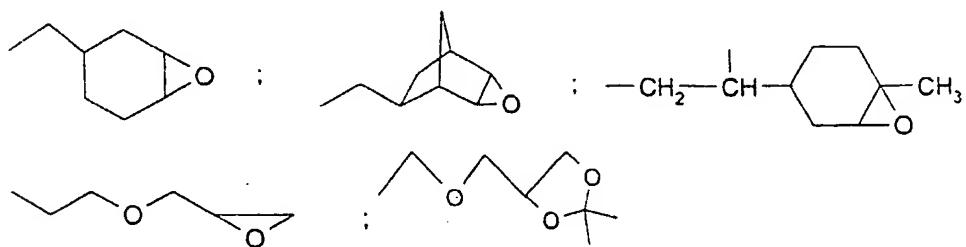


wherein the composition has a volumetric polymerization and/or crosslinking shrinkage of less than 1.5% v/v, and wherein the photosensitizer of formula (XXII) is 3,3'-carbonylbis(7-diethylaminocoumarin) or 3,3'-carbonylbis(7-methoxycoumarin).

17. (Currently amended) A process for the preparation of a dental prosthesis or dental restoration, comprising the step of using shaping and curing a dental composition as defined in claim 12.

18. (New) The dental composition as claimed in claim 16, wherein Z is an organic substituent Z1 comprising at least one reactive epoxy, or dioxolane functional group.

19. (New) The dental composition as claimed in claim 16, wherein the reactive functional group Z1 is:



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20. (New) A process for the preparation of a dental prosthesis or dental restoration, comprising the step of shaping and curing a dental composition as defined in claim 16.